

the old barometer, prior to 1823, was fixed up in the Council-room of the Society, or the contiguous ante-room : but when Mr. Daniel's barometer was finished, at the end of the year 1822, it was fixed up in the closet adjoining the library, on the floor which is immediately *over* the Council-room ; the assumed difference in the elevation of the two floors (namely, 19 feet) having since been ascertained to be correct.

With respect to the new reference of altitude, namely, the fixed *mark* at Waterloo Bridge, much doubt has frequently been expressed about its existence, since no person had been able to discover it. The fact is that there is no *mark*, in the common acceptation of the term ; but the intended reference is nevertheless more conspicuous, more durable, and more convenient than any mark that could have been inscribed by hands. This standard mark, or level, was fixed on by Mr. Bevan in the year 1827, at the request of the Council of this Society : and it is the surface of the granite pedestal at the base of the columns, at the north abutment of the bridge, and on the eastern side ; which is about 5 feet above the lowest platform, or landing, at the stairs. Nothing therefore was wanting but the difference of level between this mark and the one made by Capt. Lloyd at London Bridge, the height of which above the mean level of the sea had been determined by him. This has been recently done by Sir John Rennie, at the request also of the Council : and the result of the whole is, that the cistern of the barometer is 97 feet above the mean level of the sea.

The author concludes his paper with some remarks on the propriety of the position of the several meteorological instruments of the Society. With respect to the *barometer*, he says he is not aware that any objection can be offered ; and as to the *hygrometer*, the observations have been found, by recent trials, not to differ materially from some expressly made in another position, at King's College, which was considered to be more favourable for such experiments. It therefore only remains to speak of the external *thermometer* and of the *rain-gauge* ; of which all that can be said on the subject would be merely a repetition of what was justly said sixty years ago by Mr. Cavendish on a similar occasion (*Philosophical Transactions*, 1776), namely, "that, on the whole, the situation is not altogether such as could be wished, but is the *best* the house affords."

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November 23, 1837.

FRANCIS BAILY, Esq., V.P. and Treasurer, in the Chair.

The following gentlemen were, by ballot, elected Auditors of the Treasurer's accounts, on the part of the Society, viz. John Frederick Daniell, Esq. ; Sir Philip Grey Egerton, Bart. ; Davies Gilbert, Esq. ; and Stephen Peter Rigaud, Esq.

Frederick William Mullins, Esq., was balloted for, but not elected into the Society.

"Magnetical Observations made in the West Indies, on the Coasts

of Brazil and North America, in the years 1834, 1835, 1836 and 1837." By Sir James Everard Home, Bart., Commander Royal Navy, F.R.S., the Observations reduced by the Rev. George Fisher, M.A., F.R.S.

The observations for the dip were made with an instrument of modern construction, by Dollond. Each observation consisted of an equal number of readings of the position of the needle, before and after the inversion of its poles, and a mean of all the readings taken for the true dip. Tables are subjoined, containing the dips observed at each place; the times of making a hundred vibrations of five horizontal needles, and the mean horizontal forces computed therefrom; and likewise the results estimated in the direction of the dipping needle, compared with direct experiments made with the dipping needle itself.

A paper was also read in part, entitled "On Low Fogs and Stationary Clouds." By William Kelly, M.D. Communicated by Capt. Beaufort, R.N., F.R.S.

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November 30, 1837.

At the Anniversary Meeting of the Royal Society, Francis Baily, Esq., Vice-President and Treasurer, in the Chair,

The Chairman read a letter from His Royal Highness the President, expressing his regret that he was unable to be present at the Meeting, in consequence of his continuing to suffer from his recent accident.

Mr. Davies Gilbert, as one of the Auditors of the Treasurer's accounts on the part of the Society, reported the balance in the Treasurer's hands at the present Audit was three hundred and thirty-seven pounds three shillings and eight pence.

The Thanks of the Society were voted to the Auditors for their trouble in auditing the Treasurer's Accounts.

The following Lists of the Fellows admitted, and of those deceased during the past year, were read:

*Deceased: on the Home List.*—His Majesty *The King*; James Henry Arnold, Esq.; Count Barbiano Bolgioiso; the Rev. Joseph Batten; Samuel D. Broughton, Esq.; Henry Thomas Colebrooke, Esq.; Earl Cowper; John Davidson, Esq.; Alexander Duncan, Esq.; the Earl of Egremont; Cypriano Ribeiro Freire; Lord Glenlyon; Sir Thomas Hanmer, Bart.; George Hibbert, Esq.; Joseph Jekyll, Esq., M.A.; John Johnstone, M.D.; John Latham, M.D. (*Winchester*); the Marquess Malaspina de Sannazaro; Captain Z. Mudge, R.E.; the Rev. Robert Nixon, B.D.; Lewis Pinto de Souza Coutinho; the Rev. William Ritchie, LL.D.; the Rev. George Rowley, D.D.; Joseph Sabine, Esq.; Count de Salis; the Bishop of Salisbury; Sir John Soane, Knt.; Dr. Tiarks; Edward Turner, M.D.

*On the Foreign List.*—M. Adam Afzelius; M. Morichini.

*Admitted: on the Home List.*—William Ayrton, Esq.; Robert Bigsby, Esq.; Henry Boase, M.D.; John Burnet, Esq.; Benjamin